

DATE: May 2, 2005

TO: Natural Resources Board

FROM: Scott Hassett

SUBJECT: Background Memo on Proposed Revision to ch. NR 115, Wisconsin's Shoreland Management Program

## 1. Why this rule revision being proposed?

### a. What event or action triggered the proposal?

In 1997, a study by the Department found that the current minimum standards in ch. NR 115 are only providing minimal protection of water quality and wildlife habitat. The study concluded that to meet the statutory objectives of the program, improved minimum standards are needed for shoreland zoning ordinances.<sup>1</sup>

In addition, counties across the state have expressed frustration with the current minimum standards found in ch. NR 115. The concerns of counties with existing standards include:

- Standards are too vague or undefined, preventing consistent application across the state.
- Standards do not provide enough direction to allow counties to amend their ordinances, requiring considerable interpretation from Department staff.
- Standards are inflexible, discouraging counties to adopt innovative regulatory programs.

Property owners have also expressed frustration with the current minimum standards, including:

- The "50% rule" for nonconforming structures is not equitable.
- In certain situations, reduced setbacks or improvements to nonconforming structures should not require a variance.

### b. What issues are addressed by this rule?

The proposed rule revisions address the issue of improving shoreland development standards to meet the statutory objectives of the protecting water quality, fish and wildlife habitat, and natural scenic beauty, while providing counties and property owners with more certainty and flexibility when amending shoreland zoning ordinances or applying for permits.

Studies on shoreland development have found that setting structures back from the edges of lakes, rivers and wetlands creates a buffer that can help mitigate the environmental impact of structures and the surrounding development. The vegetation of buffers, including native trees, shrubs, wildflowers, and grasses, is crucial to help protect water quality, prevent flooding, provide fish and wildlife habitat, and screen neighboring properties to ensure greater privacy and natural scenic beauty.

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<sup>1</sup> Bernthal, T. October 1997. Effectiveness of Shoreland Zoning Standards to Meet Statutory Objectives: A Literature Review with Policy Implications. Wisconsin Department of Natural Resources.

Since 1966, the number of dwellings along 235 northern Wisconsin lakes increased an average of 216 percent. The highest increase, 800 percent, in the number of new dwellings occurred on lakes 500-900 acres, the second largest size of lake.<sup>2</sup>

As the density of shoreland development increases, the storm water running off impervious surfaces, such as roofs, decks, and driveways, can have devastating effects on receiving waters. In a study of 134 sites on 103 Wisconsin streams, researchers found that levels of urban development as low as 10 to 20 percent in a watershed were associated with severe impacts on the biotic integrity of the streams.<sup>3</sup> A study in Maine that paired an undeveloped, forested watershed with an adjacent watershed of similar size and physical characteristics, but with a watershed 40 percent forest and a subdivision with one-acre lots, found that the more developed watershed showed an increase of 720 percent in phosphorus export.<sup>4</sup> Phosphorus is the main nutrient of concern in lakes because it stimulates the growth of aquatic plants, causing nuisance algal blooms and accelerating the rate of eutrophication.

Shoreland development can also impact fish and wildlife habitat. Researchers studying 14 lakes in northern Wisconsin and Michigan's Upper Peninsula found that bluegill growth rates were significantly reduced with increasing intensity of lakeshore development. The researchers did not conclude that there is a direct cause-effect relationship between bluegill growth rates and lakeshore development, but the alteration of riparian and littoral habitat resulting from shoreland development may have reduced the capacity of lakes to maintain productive fish populations.<sup>5</sup>

Another study that looked at wildlife habitat in northern Wisconsin found that as shoreline housing density increases, the percentage of shoreline available as suitable green frog habitat decreases, and green frog abundance also decreases. The same study also found that that habitat alteration associated with shoreland development is likely the primary factor influencing a shift in breeding bird populations in northern Wisconsin – from edge-sensitive species, like Swainson's thrush, and black and warblers, and source/core species, like hermit thrush and brown creepers, on undeveloped lakes to "urban" species, like American robin, brown-headed cowbird, and mourning dove, on developed lakes.<sup>6</sup>

In a 1996 survey of Vilas County waterfront property owners, the top three reasons identified for owning waterfront property were enjoying the view, peace and tranquility, observing wildlife, and fishing.<sup>7</sup> In a Minnesota survey, when waterfront property owners and lake users perceived a decline in the scenic quality of the lake they used the most, cabin and home development was cited over 85

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<sup>2</sup> Wisconsin Department of Natural Resources. January 1996. Northern Wisconsin's Lakes and Shorelands: a report examining a resource under pressure.

<sup>3</sup> Wang, L; Lyons, J.; Kanehl, P. and Gatti R. June, 1997. "Influences of Watershed Land Use on Habitat Quality and Biotic Integrity in Wisconsin Streams." Fisheries. vol. 22, no. 6.

<sup>4</sup> Dennis, J. 1986. "Nutrient Loading Impacts: Phosphorus Export from a Low-Density Residential Watershed and an Adjacent Forested Watershed." Lake and Reservoir Management. vol. 2.

<sup>5</sup> Schindler, D.; Geib, S. and Williams, M. 2000. "Patterns of Fish Growth along a Residential Development Gradient in North Temperate Lakes." Ecosystems. vol. 3.

<sup>6</sup> Meyer, M. and Daulton, T. December 1997. Shoreland Zoning Regulations Do Not Adequately Protect Wildlife Habitat in Northern Wisconsin. Final Report – USFWS State Partnership Grant P-1-W, Segment 17.

<sup>7</sup> Schifferd, P. 1996. Being at the Lake: A Study of Vilas County Wisconsin Lake Property Owners. Final Report to the World Wildlife Fund.

percent of time as the cause. Other top ranking activities that resulted in a decline in scenic quality included installation of docks and boatlifts, and the removal of trees and shrubs in the shoreland area.<sup>8</sup>

Revisions to ch. NR 115 are expected to address the inadequacies of the current minimum standards in achieving the statutory objectives of the program. Benefits to the environment include reduced storm water runoff and related pollutants and improved fish and wildlife habitat. The revision is also expected to address administrative problems with the current rule identified by county zoning staff and property owners.

## **2. Summary of rule**

The Department, with assistance from the NR 115 Advisory Committee, drafted revisions to ch. NR 115 to meet the statutory objectives of the program, while providing certainty and flexibility to counties and property owners. Changes include adding definitions to the rule for clarity; establishing standards for multi-unit residential development, mobile home parks, and campgrounds; providing exemptions for certain activities from shoreland setback and shoreland vegetation standards; establishing impervious surface standards; and replacing the “50% rule” for nonconforming structures with a standard based on the size and location of structures. These changes will significantly decrease the number of variances granted by counties, allowing certain activities to be allowed with a simple administrative permit by the county.

The rule contains fourteen sections. Highlights of substantive changes are summarized below.

### **Section NR 115.01 – Purpose**

- Language is added to advance the statutory purposes of the program found in Section 281.31 (1), Stats.
- Language is added recognizing that this rule only establishes minimum standards for county shoreland zoning ordinances, and counties may adopt more protective regulations to adequately protect local resources.

### **Section NR 115.02 – Applicability**

- Language consistent with s. 59.692 (7), Stats., is added to clarify how this rule impacts lands annexed or incorporated by cities and villages.
- Language clarifying the authority of town shoreland zoning ordinances is added.
- Language clarifying the applicability of ch. NR 115 in areas under the jurisdiction of ch. NR 118 is added.

### **Section NR 115.03 – Definitions**

- The definition section now contains 52 definitions, up from 13 definitions. Definitions will help provide consistency in interpretation of county shoreland zoning ordinances.

### **Section NR 115.09 – Land division review**

- The requirement for land division review is changed from the creation of “3 or more lots” to the creation of “one or more lots” to ensure that all new lots created meet minimum lot size requirements. This standard was added to protect prospective property owners and ensure that all lots have a buildable area.

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<sup>8</sup> Anderson, K.; Kelly, T.; Sushak, R.; Hagley, C.; Jensen, D. and Kreag, G. 1999. Summary Report on Public Perception of the Impacts, Use and Future of Minnesota Lakes: Results of the 1998 Minnesota Lake Survey. A joint publication by the University of Minnesota Sea Grant Program and Minnesota Department of Natural Resources.

- If new lots are created that are divided by a stream or river, one side of the lot must meet minimum lot size requirements and density standards. No portion of a lot or parcel divided by a navigable stream may be developed unless that portion of the lot or parcel meets or is combined to meet the minimum lot size requirements and density standards. This provision will ensure that development only take place on lots or parcels which meet minimum lot size requirements, again safeguarding property owners.
- Counties may adopt standards to regulate substandard lots in common ownership.

#### Section NR 115.11 – Lot size and development density

- Minimum lot size and density standards for single-family or duplex residential uses have not been changed.
- Minimum lot size and density standards are established for multi-unit residential development, mobile home parks, campgrounds, and other types of uses.
- Counties may request the approval of an alternative regulation for campgrounds that is different than the minimum standards in NR 115. Counties utilizing this option must demonstrate how the alternative regulation would achieve the statutory purposes of the program.
- Counties are granted the flexibility to regulate keyhole lots.
- New lot width measurement is developed which will accommodate irregular shaped lots.
- Counties are granted the flexibility to regulate backlots in the shoreland zone.
- Outlots may be created as part of a subdivision plat or certified survey map.
- Counties may request the approval of standards for alternative forms of development with reduced lot sizes and development densities for planned unit developments, cluster developments, conservation subdivisions, and other similar alternative forms of development if they include, at a minimum, a required shoreland setback of more than 75 feet and a larger primary buffer than is required in s. NR 115.15(2).

#### Section NR 115.13 – Shoreland setback

- Language is added to address structures exempted by other state or federal laws from the shoreland setback standards.
- Provisions are added to allow counties to exempt 15 types of structures from the shoreland setback, an increase from 3 exempted structures.
- The construction of new dry boathouses is prohibited.
- Standards are established to qualify a lot for a reduced setback and two methods of calculating the reduced setback are provided. Counties may also request approval of an alternative setback reduction formula, demonstrating how the alternative is as effective in achieving the purposes of ss. 281.31 (1) and (6), Stats.

#### Section NR 115.15 – Shoreland vegetation

- Language governing management of shoreland vegetation in the primary shoreland buffer is improved, resulting in a more functional buffer protecting habitat and water quality.
- Tree and shrubbery pruning is allowed. Removal of trees and shrubs may be allowed if exotic or invasive species, diseased or damaged, or if an imminent safety hazard, but must be replaced.
- Provisions are added to allow counties to exempt 7 types of activities from the shoreland vegetation provisions.
- A formula to calculate the vegetative buffer mitigation requirements for existing multiple-unit developments was added to proportionately mitigate based on the intensity of the project.
- A formula for the width of access corridors is provided, replacing the “30 feet in any 100 feet” provision, which was confusing if a lot had less than 100 feet of frontage.

- Existing lawns may be maintained indefinitely in the primary shoreland buffer, unless a property owner decides to initiate one of 5 actions that require restoration of the primary shoreland buffer.

#### Section NR 115.17 – Impervious surfaces

- Best management practices must be implemented and maintained that, to the maximum extent practicable, result in no increase in storm water discharge from impervious surfaces.
- If a project results in a lot being covered with 20 percent or more impervious surfaces, the shoreland buffers must be preserved or restored in compliance with the standards in NR 115.15 (applies only to lots with lands within 75 feet of the ordinary high-water mark.)

#### Section NR 115.19 – Land disturbing activities

- An erosion control and revegetation plan is required for land disturbing activities to minimize erosion and sedimentation cause by the activity.
- A county permit is required for land disturbing activities in the shoreland zone if the project includes 2,000 square feet or more of land.
- Counties shall exempt from the permit requirement activities that have already received permits from other identified permitting authorities.
- Counties may require a wetland buffer to minimize the impacts of land disturbing activities to prevent damage to wetlands.

#### Section NR 115.21 – Nonconforming uses and structures

- The “50% rule” is removed, and a standard for the regulation of nonconforming structures based on the location and size of structures is used.
- Unlimited ordinary maintenance and repairs is allowed on nonconforming structures.
- Structural alterations are allowed on nonconforming structures if mitigation is implemented as specified by the county.
- Expansion and replacement of nonconforming accessory structures is prohibited, unless located in a campground or mobile home park, and certain standards are satisfied.
- Expansions of nonconforming principal structures is allowed if the structure is set back at least 35 feet from the ordinary high-water mark, if the footprint cap is not exceeded, if mitigation is implemented as specified by the county and if other standards are met.
- Replacement of nonconforming principal structures is allowed on the existing foundation anywhere within the shoreland setback area, and on new foundations if the structure is setback at least 35 feet from the ordinary high-water mark, if mitigation is implemented as specified by the county, and if other standards are met.
- Replacement of nonconforming principal structures is prohibited if the structure has no foundation, the foundation extends below the ordinary high-water mark, or the structure extends over the ordinary high-water mark.
- Counties shall adopt a mitigation system that is roughly proportional to the impacts of activities proposed.
  1. Level one mitigation requirements shall be determined by the county, and apply to structural alterations of nonconforming accessory structures, and replacement of nonconforming accessory structures in campgrounds and mobile home parks.
  2. Level 2 mitigation requirements shall include, at a minimum, restoration of the primary shoreland buffer, proportional to the impacts of the proposed project, and apply to structural alterations, expansions, and replacement of nonconforming principal structures.

**3. How does this proposal affect existing policy?**

The proposed revisions to ch. NR 115 are consistent with past Department policy and guidance, and Wisconsin case law. In many instances, the proposed changes codify past guidance to counties. One major shift is present in Department policy in regards to the regulation of nonconforming structures. This shift in policy is based on input from the NR 115 Advisory Committee, past concerns raised by counties, comments received by the public at listening session in the Winter of 2003, and direction received from the Natural Resources Board when ch. NR 118 was approved.

Past Department policy, based on Wisconsin common law, was that the goal of regulating nonconforming structures was to bring about ultimate compliance with the shoreland zoning ordinance. In most instances, this would require the removal of existing structures within 75 feet of the ordinary high-water mark.

This proposal recognizes that these nonconforming structures usually were built in compliance with the standards in place at the time of construction, and property owners may have substantial investments in the improvements on their property. This proposal still has the goal of ultimate compliance, but recognizes that the timeline for compliance has been considerably extended. The decision to comply with standards is moved from a mandate under the “50% rule” to a decision by the property owner. The property owner is given the ability to decide whether they wish to maintain the existing nonconforming structure or build a new structure in compliance. This policy shift also gains considerable environmental protection with the introduction of mitigation provisions as a key component in the regulation of nonconforming structures.

**4. Has the Board dealt with these issues before?**

Yes. The Board approved ch. NR 118, Standards for the Lower St. Croix National Scenic Riverway, on August 11, 2004. Chapter NR 118 contains more protective standards than ch. NR 115, but the policy decisions are consistent between the two rules.

**5. Who will be impacted by the proposed rule? How?**

Counties will be primary party impacted by the proposed changes in this rule, but the level of that impact will vary county by county. Many counties have already adopted improved shoreland zoning ordinances, facilitated by the Department’s Lakes Planning and Protection grants. These counties may only need minimal changes to their ordinances to comply with the proposed changes in ch. NR 115. Other counties still have model ordinance language from the 1970s and 1980s in place, and will need to adopt considerable changes to their ordinances. It is likely in these situations that the counties will once more adopt the model ordinance supplied by the Department.

Shoreland property owners, builders, landscapers and others involved in waterfront activities will be impacted once counties amend their ordinances. These parties should benefit from regulations that reduce the need for variances and that provide clear standards for activities. The public who uses and enjoys Wisconsin’s navigable waters will also benefit from the improved standards designed to protect public rights in navigable waters.

**6. Information on environmental analysis, if needed.**

An environmental analysis has been prepared for this proposal and is included with this request for permission for public hearings.

**7. Small business analysis**

This rule requires counties to adopt shoreland zoning ordinances. County shoreland zoning ordinances must meet or exceed the minimum standards established by the rule. This rule does not directly impact small businesses, so an analysis is not required.